

Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LAKE MICHIGAN				
SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.9 N SHEBOYGAN [43.78, -87.72]				
	09/02/11 09:00 CST		0	Marine Thunderstorm Wind (MG 46 kt)
	09/02/11 09:00 CST		0	Source: Mesonet
Thunderstorm wind gust to 53 mph at Sheboygan North High School.				
A line of severe thunderstorms moved from east central Wisconsin over the near shore waters of Lake Michigan during the morning hours. These thunderstorms caused damaging thunderstorm wind gusts.				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	09/03/11 05:00 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	09/03/11 05:00 CST		0	Source: C-MAN Station
Strong thunderstorms affected portions of the Lake Michigan near shore waters off the southeast Wisconsin coast during the early morning hours of September 3rd. These thunderstorms caused severe marine wind gusts.				
NORTH PT LT TO WIND PT WI COUNTY --- 1.8 NNE CUDAHY [42.97, -87.84], 3.2 N CUDAHY [43.00, -87.85]				
	09/24/11 08:45 CST		0	Waterspout
	09/24/11 08:55 CST		0	Source: Public
This was the first of five waterspouts that developed just southeast of Milwaukee Harbor.				
NORTH PT LT TO WIND PT WI COUNTY --- 2.6 NNE CUDAHY [42.99, -87.83], 5.2 N CUDAHY [43.03, -87.85]				
	09/24/11 09:00 CST		0	Waterspout
	09/24/11 09:20 CST		0	Source: Public
This was the second of five waterspouts observed just southeast of Milwaukee Harbor.				
NORTH PT LT TO WIND PT WI COUNTY --- 2.9 N CUDAHY [42.99, -87.85], 5.1 N CUDAHY [43.02, -87.86]				
	09/24/11 09:02 CST		0	Waterspout
	09/24/11 09:23 CST		0	Source: Coast Guard
This was the third in a series of five waterspouts observed in Milwaukee Bay. Observed by commodore of Milwaukee Yacht Club.				
NORTH PT LT TO WIND PT WI COUNTY --- 4.3 N CUDAHY [43.01, -87.86], 4.5 SE NORTH POINT LTHOUSE [43.03, -87.87]				
	09/24/11 09:30 CST		0	Waterspout
	09/24/11 09:40 CST		0	Source: Coast Guard
This was the fourth in a series of five waterspouts observed in Milwaukee Bay that morning. This waterspout was observed by multiple people at the Milwaukee Yacht Club as well as Coast Guard personnel on ship.				
NORTH PT LT TO WIND PT WI COUNTY --- 4.9 SE NORTH POINT LTHOUSE [43.03, -87.86], 4.0 SE NORTH POINT LTHOUSE [43.04, -87.87]				
	09/24/11 09:40 CST		0	Waterspout
	09/24/11 09:45 CST		0	Source: Public
This was the last and furthest north in a series of five waterspouts observed in Milwaukee Bay that morning. This waterspout was observed by multiple people at the Milwaukee Yacht Club.				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 4.4 ESE KENOSHA [42.56, -87.75], 4.1 E KENOSHA [42.58, -87.75]				
	09/24/11 14:12 CST		0	Waterspout
	09/24/11 14:17 CST		0	Source: Trained Spotter
One of two waterspouts that developed just east of the Kenosha lake shore, caused by very unstable conditions in the low levels of the atmosphere over Lake Michigan and weak low level convergent boundaries caused by nearby showers.				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 2.3 E KENOSHA [42.59, -87.79], 1.4 ENE KENOSHA [42.59, -87.80]				
	09/24/11 14:22 CST		0	Waterspout
	09/24/11 14:36 CST		0	Source: Emergency Manager

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One of two waterspouts that developed just east of the Kenosha lake shore, caused by very unstable conditions in the low levels of the atmosphere over Lake Michigan and weak low level convergent boundaries caused by nearby showers.				

On September 24th, 2011 an unseasonably cold air mass flowed over the warm waters of Lake Michigan creating very unstable conditions in the low levels of the atmosphere. The lake surface temperature was estimated to be in the lower to middle 60s F. Meanwhile, the ambient air around 4000 feet was estimated to be 40 degrees F creating very unstable conditions over the low levels of Lake Michigan. Updrafts from nearby showers and thunderstorms resulted in convergent boundaries over the near shore waters of Lake Michigan. The combination of the unstable atmosphere and these boundaries caused five "observed" waterspouts just offshore of downtown Milwaukee, and two "observed" waterspouts just offshore of Kenosha. The waterspouts remained offshore and did not cause any property damage. Most of the waterspouts were filmed by WISN-TV.



Left image shows approximate paths of five waterspouts based on numerous pictures and video submitted by severe weather spotters, U.S. Coast Guard, Milwaukee WISN TV-12, and the general public in the Milwaukee Harbor area. Image on right was taken by Elaine Litzau at about 10:10 A.M. CDT, who was at the Discovery World Museum on the Milwaukee lakeshore. Her image is most likely of waterspout #3 which occurred from 10:02 to 10:23 A.M. CDT.

WISCONSIN, Southeast

MARQUETTE COUNTY --- 5.0 W WESTFIELD [43.88, -89.58], GERMANIA [43.88, -89.25]	09/02/11 07:35 CST	75K	Thunderstorm Wind (MG 58 kt)
	09/02/11 08:00 CST	0	Source: Emergency Manager

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Severe thunderstorms with strong wind gusts produced damage across Marquette County, including a 10-mile wide swath of damage from west of Westfield to Germania. The damaging winds downed power lines and trees, including a tree that crushed a parked car on CTH B in Montello. Five homes received minor damage to roofs, siding and gutters due to tree debris striking the homes. At the peak of the storm, 937 homes were without electricity. A mesonet site one mile north of Westfield recorded a 67 mph (58 knot) wind gust.				

FOND DU LAC COUNTY --- 1.5 NW FOND DU LAC [43.80, -88.47]

09/02/11 08:40 CST	0	Thunderstorm Wind (EG 50 kt)
09/02/11 08:40 CST	0	Source: Emergency Manager

Severe thunderstorms with strong wind gusts produced damage across central Fond Du Lac County. The damaging winds downed power lines and trees, knocking out power to businesses and homes on the west side of the city of Fond Du Lac.

Forcing from a strengthening low-level jet impinging on a surface warm front as it slowly lifted north through the state, was enhanced by lift from the right entrance region of an upper level jet. A very warm, moist and unstable air mass to the south of the front provided the necessary ingredients for the development of severe thunderstorms over northern sections of South Central and Southeast Wisconsin the morning of September 2nd.

IOWA COUNTY --- 2.5 S LINDEN [42.88, -90.27], 4.0 SSW DODGEVILLE [42.92, -90.16]

09/03/11 01:40 CST	50K	Thunderstorm Wind (EG 70 kt)
09/03/11 01:45 CST	0	Source: Emergency Manager

The Iowa County Emergency manager reported damage from severe thunderstorm wind gusts estimated at 70 knots (80 mph) in a 5-mile wide swath from south of Linden to south-southwest of Dodgeville. The damaging winds blew the roof off of a cattle barn south of Dodgeville and knocked over a grain bin. Numerous trees and power lines were knocked down by the powerful winds.

IOWA COUNTY --- 5.0 SE DODGEVILLE [42.92, -90.06], 6.0 NE HOLLANDALE [42.93, -89.85]

09/03/11 02:05 CST	0.10M	Thunderstorm Wind (EG 70 kt)
09/03/11 02:15 CST	0.20M	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 70 knots (80 mph) in a 5-mile wide swath from southeast of Dodgeville to northeast of Hollandale. The damaging winds destroyed a cattle shed and caused minor damage to a barn. The winds damaged several corn fields on East Lawinger Road southeast of Dodgeville. A grain bin was knocked off its foundation and destroyed, and a corn field was flattened northeast of Hollandale. Numerous trees and power lines were knocked down by the powerful winds.

DANE COUNTY --- 5.0 SW BLUE MOUNDS [42.97, -89.90], 2.0 E MC FARLAND [43.02, -89.24]

09/03/11 02:22 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 02:57 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in an 8-mile wide swath from southwest of Blue Mounds to east of McFarland. The damaging winds downed numerous trees and power lines, with 1000 customers left without power in the Madison area.

DANE COUNTY --- OREGON [42.93, -89.38], 5.0 NE ALBION [42.93, -89.00]

09/03/11 02:45 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:30 CST	0	Source: Trained Spotter

A trained spotter reported numerous trees and power lines downed along a path from Oregon to northeast of Albion from damaging severe thunderstorm wind gusts estimated at 65 knots (75 mph). The winds tore some siding off a home in Oregon. Heavy rain caused ponding of water on area roadways, with water over the curb on some streets in Oregon.

DANE COUNTY --- 2.0 E PAOLI [42.92, -89.48]

09/03/11 02:46 CST	0	Hail (0.75 in)
09/03/11 02:46 CST	0	Source: Trained Spotter

A trained spotter reported hail near Paoli that was measured 3/4 of an inch in diameter that fell from strong to severe thunderstorms moving through Dane County during the early morning hours of of September 3rd.

DANE COUNTY --- COTTAGE GROVE [43.08, -89.20]

09/03/11 03:10 CST	0	Thunderstorm Wind (EG 50 kt)
09/03/11 03:10 CST	0	Source: Trained Spotter

A trained spotter reported large tree branches downed from severe thunderstorm wind gusts estimated at 50 knots (58 mph).

JEFFERSON COUNTY --- LAKE MILLS [43.08, -88.90]

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	09/03/11 03:10 CST		0	Thunderstorm Wind (EG 65 kt)
	09/03/11 03:20 CST		0	Source: Trained Spotter

A trained spotter reported large tree branches blown down, an above ground pool blown into a neighbor's yard and lawn furniture tossed from severe thunderstorm wind gusts estimated at 65 knots (75 mph).

DANE COUNTY --- 2.0 NNW MARSHALL [43.20, -89.07]

09/03/11 03:11 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 03:11 CST	0	Source: Law Enforcement

Law enforcement officers reported trees downed from severe thunderstorm wind gusts estimated at 56 knots (65 mph).

DODGE COUNTY --- 2.0 N PORTLAND [43.23, -88.97], 2.0 N ASHIPGUN [43.25, -88.52]

09/03/11 03:20 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:45 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in a 4-mile wide swath from north of Portland to north of Ashippun. The damaging winds downed numerous trees and power lines.

JEFFERSON COUNTY --- WATERLOO [43.18, -88.98], 4.0 NE IXONIA [43.19, -88.54]

09/03/11 03:20 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:40 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in a 3-mile wide swath from Waterloo to northeast of Ixonia. The damaging winds downed numerous trees and power lines.

WAUKESHA COUNTY --- MONTEREY [43.17, -88.50]

09/03/11 03:40 CST	2K	Thunderstorm Wind (EG 56 kt)
09/03/11 03:40 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 56 knots (65 mph) that downed two trees and two power lines and numerous branches in the township of Oconomowoc.

DODGE COUNTY --- ALDERLEY [43.22, -88.45]

09/03/11 03:55 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 03:55 CST	0	Source: Law Enforcement

Law enforcement officials reported trees downed from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

WASHINGTON COUNTY --- 5.0 S HARTFORD [43.25, -88.38], 5.0 SE JACKSON [43.27, -88.10]

09/03/11 04:00 CST	3K	Thunderstorm Wind (EG 60 kt)
09/03/11 04:20 CST	0	Source: Trained Spotter

A trained spotter reported numerous trees and power lines downed in a 6-mile wide swath from south of Hartford to southeast of Jackson from damaging severe thunderstorm wind gusts estimated at 60 knots (69 mph). The roof was blown off a silo, trees were downed and a hay wagon moved 20 feet by the severe wind gusts on a farm at the intersection of Western Avenue and CTH P south of Jackson.

MILWAUKEE COUNTY --- 2.0 NW TIMMERMAN ARPT [43.14, -88.06], 1.1 NW FOX PT [43.18, -87.90]

09/03/11 04:10 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 04:30 CST	0	Source: Law Enforcement

Law enforcement officers reported numerous trees and power lines downed in a 4-mile wide swath from northwest of Timmerman Field to Bayside from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

OZAUKEE COUNTY --- 3.0 W MEQUON [43.22, -88.04], PORT WASHINGTON [43.38, -87.87]

09/03/11 04:20 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 04:35 CST	0	Source: Law Enforcement

Law enforcement officers reported numerous trees and power lines downed in a 5-mile wide swath from west of Mequon to Port Washington from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

A residual surface boundary that extended from eastern Iowa across northern Illinois was the focus for thunderstorm development as a moderate southwest 850 mb jet pushed it north as a warm front. Upper divergence from the right entrance region of an upper jet maximum provided additional lift. Moderate deep layer wind shear produced sustained updrafts to form thunderstorm clusters that

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evolved into short line segments as they reached southern Wisconsin. The severe thunderstorm lines produced damaging wind gusts in a swath from Iowa County along and either side of the I-94 corridor to Milwaukee and Ozaukee counties.

WAUKESHA COUNTY --- 1.6 SSW DOWNTOWN WAUKESHA [43.00, -88.23]

09/25/11 11:55 CST		2K	Lightning
09/25/11 11:55 CST		0	Source: Newspaper

Lightning struck a tree outside of a home in the 100 block of west Frame Avenue in the City of Waukesha. The lightning strike also damaged the gas meter at the home and part of a gas line. Some homes in the area were evacuated briefly as a precaution. The lightning strike sent some pieces of wood from the tree 60 yards away from the point of impact, damaging some nearby properties. Fire officials had the gas line problem resolved by 4:30 pm CDT (3:30 pm CST).

GREEN COUNTY --- 4.0 NW MONTICELLO [42.77, -89.64]

09/25/11 13:25 CST		0	Funnel Cloud
09/25/11 13:25 CST		0	Source: Trained Spotter

A trained spotter reported a funnel cloud northwest of Monticello in north-central Green County.

LAFAYETTE COUNTY --- 2.0 SE SOUTH WAYNE [42.55, -89.85]

09/25/11 13:55 CST		0	Funnel Cloud
09/25/11 13:55 CST		0	Source: Law Enforcement

Law enforcement officials reported a funnel cloud southeast of the town of South Wayne in far southeast Lafayette County.

DANE COUNTY --- 1.0 W VERONA [42.98, -89.55]

09/25/11 16:10 CST		0	Hail (0.75 in)
09/25/11 16:10 CST		0	Source: Trained Spotter

A trained spotter reported hail, 3/4 of an inch in diameter, that fell 1 mile west of the town of Verona in Dane County.

A cut-off upper level low pressure system, situated just south of the Wisconsin/Illinois border, produced a deepening surface low that wrapped north and then west around the upper low. Deep moisture...strong layer Q-vector convergence and strong 850-700 mb warm air advection pushed across southern Wisconsin ahead of, and along with, the surface low during the afternoon hours of September 25th. Thunderstorms were embedded within the broad shield of rain showers that developed over South-Central and Southeast Wisconsin. These storms produced small hail, and a few funnel cloud reports, mainly over southwest portions of South-Central Wisconsin.

RACINE COUNTY --- 1.0 NW IVES GROVE [42.74, -87.98], 1.3 ENE IVES GROVE [42.74, -87.95], 1.2 ESE IVES GROVE [42.72, -87.95], 1.0 SW IVES GROVE [42.72, -87.98]

09/26/11 05:00 CST	1	6K	Flood (due to Heavy Rain)
09/26/11 05:00 CST		1K	Source: Newspaper

Heavy rains resulted in flash flooding of a construction zone on the west frontage road of I-94 between STH 20 and CTH C. A 76-year-old Dousman man died when his car stalled in the flood waters after driving into a flooded ditch in the construction zone. The preliminary cause of death was from a heart attack and hypothermia, suffered when the victim apparently tried to leave the marooned car and walk for help. His body was found in the flood water about 100 yards from his car.

Direct Fatalities: M76EQ

Showers and thunderstorms associated with a cut-off upper low that stalled over northern Illinois and southern Wisconsin produced up to 3 inches of rain across parts of southern Wisconsin over a 48-hour period ending the morning of September 26th...with between 1.5 and 2 inches falling in the last 24 hours of that two-day period. The heavy rains flooded low-lying areas and ditches across the region, with standing water 3 to 4 feet deep in some locations. A 76-year-old man died of a heart attack and hypothermia after his car became stalled after he drove into a flooded construction zone in Racine County.

(WI-Z056) SAUK, (WI-Z062) IOWA, (WI-Z067) LAFAYETTE

09/29/11 13:00 CST		6K	Strong Wind (MAX 47 kt)
09/29/11 22:00 CST		0	

Strong and gusty northwest winds developed over South-Central Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 54 mph (39 to 47 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines at scattered locations across South-Central Wisconsin.

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(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z069) ROCK, (WI-Z070) WALWORTH				
	09/29/11 13:00 CST		21K	Strong Wind (MAX 48 kt)
	09/30/11 00:00 CST		0	

WASHINGTON COUNTY --- HARTFORD [43.32, -88.38]

09/29/11 14:15 CST	0	Hail (0.75 in)
09/29/11 14:15 CST	0	Source: Trained Spotter

Scattered thunderstorms that accompanied a cold front across southern Wisconsin produced hail showers over portions of Southeast Wisconsin. While most of the hail was 1/4 to 1/2 inch in diameter, a trained spotter in Hartford, in western Washington County, reported 3/4 inch hail stones.

Strong and gusty northwest winds developed over South-Central and Southeast Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 55 mph (39 to 48 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines at scattered locations across South-Central and Southeast Wisconsin.

(WI-Z052) SHEBOYGAN, (WI-Z060) OZAUKEE, (WI-Z066) MILWAUKEE, (WI-Z071) RACINE, (WI-Z072) KENOSHA

09/29/11 14:00 CST	10K	Strong Wind (MAX 46 kt)
09/30/11 02:45 CST	0	

Strong and gusty northwest winds developed over Southeast Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 53 mph (39 to 46 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds, which continued into the early morning hours of September 30th, toppled trees and downed power lines across Southeast Wisconsin. The power outages indirectly led to the death of a 49-year-old Milwaukee man on a ventilator.

(WI-Z068) GREEN

09/29/11 15:00 CST	4K	High Wind (MAX 59 kt)
09/29/11 17:00 CST	0	

Strong and gusty northwest winds developed over South-Central Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (40 to 46 mph). Surface winds gusted between 50 mph and 68 mph in Green County, driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines across South-Central Wisconsin. The strong winds affected all of Wisconsin, with all of the state parks on the Door Peninsula closed for the entire following weekend to allow crews time to clear debris and restore power.